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In the Spotlight

ALLSTAR Web Site Tops Half a Million Hits in January

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The Aeronautics Learning Laboratory for Science, Technology and Research (ALLSTAR) project's Web server reported record numbers in hits, bytes transferred, and user sessions for January. Over half a million hits (546,873) were recorded during the month by the Webtrendsä software package. The ALLSTAR project is located at Florida International University, and the Web site is online at **http://www.allstar.fiu.edu/**.

The number of hits in January represented a 29% increase over the number of hits reported in December, also a record month. In January, ALLSTAR transferred over 5.7Gb of information, another record for the site. This was an 18% increase over the previous month's transfer of materials. The site recorded a 40% increase in user sessions as compared to the previous month. January also saw the BBC's Education Web guide recognize the excellence of the ALLSTAR Web site.

Geared to students in grades 4-14, the ALLSTAR Web site materials are presented on three levels of increasing complexity, with topics that include History of Aeronautics, Principles of Aeronautics (Science), Careers in Aeronautics, a photo and video gallery, and Research in Aeronautics by NASA employees and others.

A Teachers' Guide that correlates national math and science standards with the materials on the Web site is also available. The national math standards are those proposed by the National Council of Teachers of Mathematics, while the national science standards are those provided by the National Academy of Sciences. Florida's Sunshine State Standards in math, science, and social studies are also featured on the Web site and related to site content. A school-to-work section that provides job opportunity links to aeronautics and aviation companies is operational as well.

In the 20 months since it went online, the ALLSTAR project's site has been recognized 20 times as an outstanding Web site. Awards include those from the BBC, PBS, NOVA, the Discovery Channel, I Cringely, Study Web, 4kids, Access Indiana, and the Exploratorium of San Francisco. ALLSTAR materials are being used by schools and school districts in the United States, Canada, and Ireland, with hits from as far away as Australia and Korea.

The ALLSTAR project has benefited greatly from the support and encouragement of NASA's IITA and its successor, LTP, as well as that of Dr. Samuel E. Massenberg of NASA-Langley, and Mark Léon.

News from NASA

Kate Weisberg Named New LTC Project Manager

Kate Weisberg has been named as the new NASA's Learning Technologies Channel (LTC) project manager, replacing Andrea McCurdy. As project manager for LTC, it is Weisberg's job to produce all LTC events and develop new opportunities and partners for LTC.

Andrea McCurdy will continue her involvement in NASA Quest as an advance program manager and she is expected to bring exciting new opportunities to Quest and LTC.

Weisberg's background includes research and development systems engineering positions at Xerox, General Electric, Apple Computer, Disney, and three Silicon Valley start-ups. Just prior to joining NASA Quest, she was a project manager with Xaos, Inc., a commercial film and animation firm in San Francisco.

Kate Weisberg has photographed extensively in South America, Mexico, and Europe, and is a professional wildlife artist whose paintings are in the permanent collections of a number of international museums and private collectors. Her underwater video clips of sharks were used during the development of animated sequences for The Discovery Channel's *Prehistoric Shark* series.

Weisberg's e-mail address is kweisberg@mail.arc.nasa.gov.

This bulletin will also be available in Adobe Acrobat format on the Developers' Workshop Web site at: **http://developers.ivv.nasa.gov/collab/pubs/bulletin/**

Nothin' —but Net

JNGs—Taking the JPEG above and Beyond the Traditional Realm

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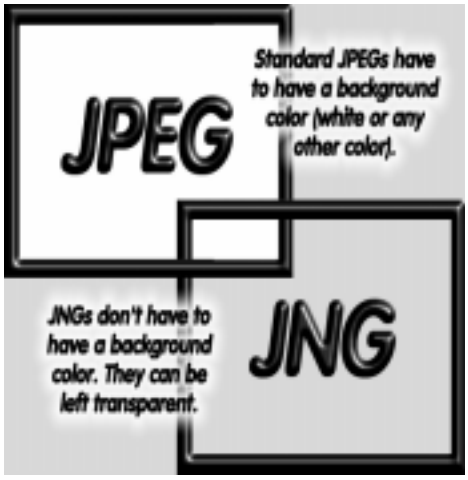
From the creators of the PNG and the MNG comes a new hit graphic format, JNG (JPEG Network Graphic). The JNG, another advancement of the Portable Network Graphics data stream, is an extension of the Multiple Network Graphics and allows a JPEG to have some additional features. The JNG gives the standard JPEG the ability to have transparent layers, interlacing, and gamma correction. It follows along the same lines as the PNG and the MNG. The JNG is one of the main formats used for the MNG because of the transparencies and layers. Using the JNG in a MNG image allows for smoother animation, since more colors are allowed (a JNG is not limited to 256 colors).

Another advantage of the JNG is that it uses a lossy compression. This allows the image file size to be much smaller for large images than it is for GIFs and PNGs. The JNG uses the same basic compression datastream as the standard JPEG, allowing it to have its small file size.



The JNG format is still being updated and finalized. Some features of the JNG format include better compression than GIFs and PNGs and support for transparency.

JNGs also share some PNG features:

- Multiple CRCs so that file integrity can be checked without viewing
- Signature that can detect the most common types of file corruption
- Full alpha support (multi-level transparency) for all image objects
- Gamma and color correction for cross-platform consistency
- Ability to store copyright and other textual information, either compressed or uncompressed
- Full year 2000 (Y2K) support

The downside to the JNG format is that it is not 100 percent complete. There is no JNG reference library for programmers to use. JNG is also behind on application support. There are only a few applications that support the JNG format.

The JNG format seems to be promising for the future, but how near or far in the future is unknown. Browser and application support still need a lot of development to get up to speed. Once the JNG format is completed, everyone using the World Wide Web will have another toy to play with.

To learn more about JNGs, visit the JNG homepage at **http://www.cdrom.com/pub/mng/spec/draft-jmg.html**.

News —Bytes

Immersive Theatre, Updated CD, More at the Public Connection

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The Public Connection is very pleased that the new Immersive Theatre, which opened in December, has been a smashing success—with an increase of over 80% in paid attendance. The first show, *Cosmic Mysteries*, features some of the most perplexing questions in Earth and space science. The full-view graphics (over 65% of the dome is covered by digital graphics) take the visitor right into the action. More shows for this theater are planned for next year.

The *Space Update* CD-ROM, which is now in version 2.06, will soon be changed (see **http://spaceupdate.com**). *Earth Today* will be replaced with *Origins*, making *Space Update* completely for Office of Space Science missions. A new *Earth Update*, featuring Office of Earth Science projects, will be created (an early version will be available for Earth Day 1999). Contact connect@space. rice.edu to get on the beta-test list.

Ask the Scientist CU-SeeMe videoconferences have begun, with a re-broadcast of the *Solar System Exploration* class on Friday afternoons. See **http://space.rice.edu/hmns/dlt/videosched.html** for details.

If you would like to have an "in-person" experience, a course titled *Teaching Astronomy* (SPAC 403) will be offered this summer via Rice University's Office of Continuing Education. Three hours of credit will be offered and tuition scholarships are available for qualified Houston-area teachers.

When videoconferencing, use ONLY the "chat" (or "talk") window to ask questions–the speaker's comments will be summarized there for folks with low-bandwidth connections. *Ask the Scientist* is a part of the Public Connection and is funded by NASA's Digital Library Technology project.

For more information about this program and to check out its many hot links, see **http://space.rice.edu** and **http://spaceupdate.com**.

News Bytes (cont.)

Learning Technologies Channel Upcoming Schedule Announced

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The following is a schedule of upcoming events for NASA's Learning Technologies Channel. For more information or access to these events, go to **http://quest.arc.nasa.gov/ltc/schedule.html**. Most past events are archived and clips are available at **http://quest.arc.nasa.gov/ltc/archive99.html**.

Wednesday, February 17
Challenge at Caprock: Saving the Last of the Great Plains Bison Herd
Live Broadcast: 6:30 a.m.- 9:30 a.m., Pacific

Join LTC and the Texas Parks and Wildlife Department to learn about efforts to save the world's last remnants of the most genetically pure Southern Great Plains Bison herd. Hosts include park naturalists, a wildlife biologist, a representative of the Comanche Nation, and a buffalo hunter. Students will host *Home on the Range*. Topics include geology, park and regional ecosystems, bison and genetics, Native American heritage, and life on a west Texas ranch. Broadcast from Valley School in Quitaque, Texas.

Wednesday, February 17
The ISS Tour from JSC
Live Broadcast: 10 a.m.- 11 a.m., Pacific

Join us at the Johnson Space Center (JSC) in Houston, Texas, for our regularly scheduled tour of the International Space Station mockup and training facility.

Thursdays, February 18 and 25
Two Exciting Programs Focused on the International Space Station
Live Broadcast: 10 a.m.-11 a.m., Pacific

Sixth Annual International Space Station Satellite Teleconference Series. Join us for these live and interactive programs dedicated to International Space Station (ISS) outreach. The programs provide a unique opportunity for interactivity with space station experts and include updates on ISS assembly and current microgravity research.

Friday, February 19
Lift-in of the Wright Flyer to the NASA Wind Tunnel
Live Broadcast: 10 a.m.-11 a.m., Pacific

Join us for live coverage of the lift of the Wright Flyer into the NASA wind tunnel for aerodynamic testing. The full-scale reproduction of the Wright Flyer was moved to NASA in January and parked in the Low Bay of the Wind Tunnel. NASA engineers will hoist the Flyer onto a boom crane and lift it into the wind tunnel itself. There will be a live interview and chat with Fred Culick of Cal Tech during the event.

Wednesday, March 3
Travel the Texas Time Machine: A Mystery
Live Broadcast: 10 a.m.-11 a.m., Pacific

Join LTC and the Texas Parks and Wildlife Department while students solve a mystery from an archeological dig. Texas naturalists through the ages will be in full costume and character, with clues for the savvy listener. Ask questions during the broadcast and the characters will answer them live.

Wednesday, March 17
The ISS Tour from JSC
Live Broadcast: 10 a.m.-11 .am., Pacific

Join us at the Johnson Space Center (JSC) in Houston, Texas, for our regularly scheduled tour of the International Space Station mockup and training facility.

Wednesday, April 7
Treasures of the Gulf Coast
Live Broadcast: 10 a.m.-11 a.m., Pacific

Join LTC and the Texas Parks and Wildlife Department to learn how what we do with water in our neighborhoods affects the creatures of the sea. Take a look at coastal habitats along Texas shores, including estuaries, sea grasses, and a special look at coastal critters. High school students will demonstrate experiments at the water's edge that test water quality and survey wildlife, just like our biologists.

Wednesday, April 21
The ISS Tour from JSC
Live Broadcast: 10 a.m.-11 a.m., Pacific

Join us at the Johnson Space Center (JSC) in Houston, Texas, for our regularly scheduled tour of the International Space Station mockup and training facility.

Tuesday, May 4
Spaceship Earth: Saving Aquatic Habitats
Live Broadcast: 10 a.m.- 11 a.m., Pacific

Join LTC and the Texas Parks and Wildlife Department to learn about NASA's water reclamation experiments for the space station. Using this biosphere concept, students can think about the Earth's precious water resources with new understanding. Next, learn how Texas high school students are saving aquatic habitats through service-learning. Talk with students from Amarillo, Weatherford, McAllen, and Mexico about their unique projects and learn how other students can get involved.

Wednesday, May 19
The ISS Tour from JSC
Live Broadcast: 10 a.m.-11 a.m., Pacific

Join us at the Johnson Space Center (JSC) in Houston, Texas, for our regularly scheduled tour of the International Space Station mockup and training facility.

Athena Web Site Featured in Eisenhower's Digital Dozen

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The Eisenhower National Clearinghouse (ENC) named Athena's Web site for Earth and space science for K-12 one of its Digital Dozen in the month of January. Athena is located online at **http://www.athena.ivv.nasa.gov**.

The Eisenhower National Clearinghouse collects physical and virtual resources useful to math and science educators, and each month chooses a baker's dozen Web sites to highlight. To see the entire Digital

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News Bytes (cont.)

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Dozen, visit **http://www.enc.org/classroom/dd/nf_index.htm**.

The criteria used to select sites include valuable math or science content, teacher appeal, clear navigational aids, and that special something. In addition to being featured in January's Digital Dozen, Athena has been included in Eisenhower's main listing of educational links.

If you would like to be on the LTP Bulletin mailing list, please send e-mail to Scott Gillespie at: sgillespie@rspac.ivv.nasa.gov, or write to: BDM/RSPAC, 100 University Drive, Fairmont, WV 26554. Phone: (304) 367-8324, fax: (304) 367-8211.

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